

yarns based on thermoplastic and reinforcing fibres are entrained and brought together in a parallel manner in the form of a sheet;

said sheet is made to enter a zone in which the sheet is heated to a temperature reaching at least the melting point of the thermoplastic without reaching the softening temperature of the reinforcing fibres;

B¹ the sheet is made to pass through a rotating impregnation device, while maintaining the sheet at a temperature at which the thermoplastic is malleable, in order to distribute the molten thermoplastic uniformly and guarantee that the reinforcing fibres are completely impregnated by the latter;

the sheet is introduced into a shaping and centring device, while maintaining the sheet at a temperature at which the thermoplastic is malleable, so as to obtain a tape formed by bringing the yarns together so as to be touching, thereby creating transverse continuity;

the tape is cooled in order to consolidate the yarns by freezing the thermoplastic and dimensional characteristics of the tape and appearance of the tape are set in order to deliver said composite tape.

B² 3. (Twice Amended) Process according to Claim 1, further comprising unreeling, from wound packages, a continuous yarn of reinforcing filaments and, while the yarns are being brought together in the form of a sheet, in regulating the tension in the yarns.

B³ 6. (Twice Amended) Process according to Claim 1, characterized in that, at the end of a manufacturing line, the tape is wound up in the form of a reel for storing the tape.

B⁴ Sub C² [Please add the following new claims:]

20. (New) A process for manufacturing a composite tape, said process comprising the steps of:

entraining and bringing together a multiplicity of yarns based on thermoplastic organic material and reinforcing fibres in a parallel manner to form a sheet;

heating the sheet by entering the sheet into a heating zone in which the sheet is heated to a temperature of at least a melting point temperature of the thermoplastic and less than a softening temperature of the reinforcing fibres;

passing the sheet through a rotating impregnation device, while maintaining the sheet at a temperature at which the thermoplastic is malleable, so as to ensure that molten thermoplastic is distributed uniformly and guarantee that the reinforcing fibres are completely impregnated by the molten thermoplastic;

bringing the multiplicity of yarns together so as to be touching using a shaping and centering device, while maintaining the sheet at a temperature at which the thermoplastic is malleable, so as to obtain a tape having transverse continuity; and

cooling the tape in order to consolidate the multiplicity of yarns by freezing the thermoplastic to form the composite tape.

21. (New) The process according to Claim 20, wherein the multiplicity of yarns comprise continuous glass filaments and continuous thermoplastic filaments that are co-mingled.

22. (New) The process according to Claim 20, further comprising the steps of unreeling a continuous yarn of reinforcing filaments and thermoplastic filaments; and regulating tension in the continuous yarn while the multiplicity of yarns are being brought together to form the sheet.

23. (New) The process according to Claim 20, further comprising stripping the multiplicity of yarns of static electricity before the sheet enters the heating zone.

24. (New) The process according to Claim 20, further comprising the step of